Transforming the Telecom Value Chain with Platformization

Abstract

The digital revolution that has gripped us over the past few decades owes it to the scientific community and the industry that continue to be an enabler of all innovation—telecom. More than ever, the dynamic market presents a plethora of opportunities. In addition to these opportunities are the newer business models and increasing importance of customer experience.

Communication service providers need to look beyond the role of connectivity enablers. In order to do so, they need to deliver innovation faster into the market and leverage platforms to transform the existing technological infrastructure for a faster ideation to implementation of innovation.
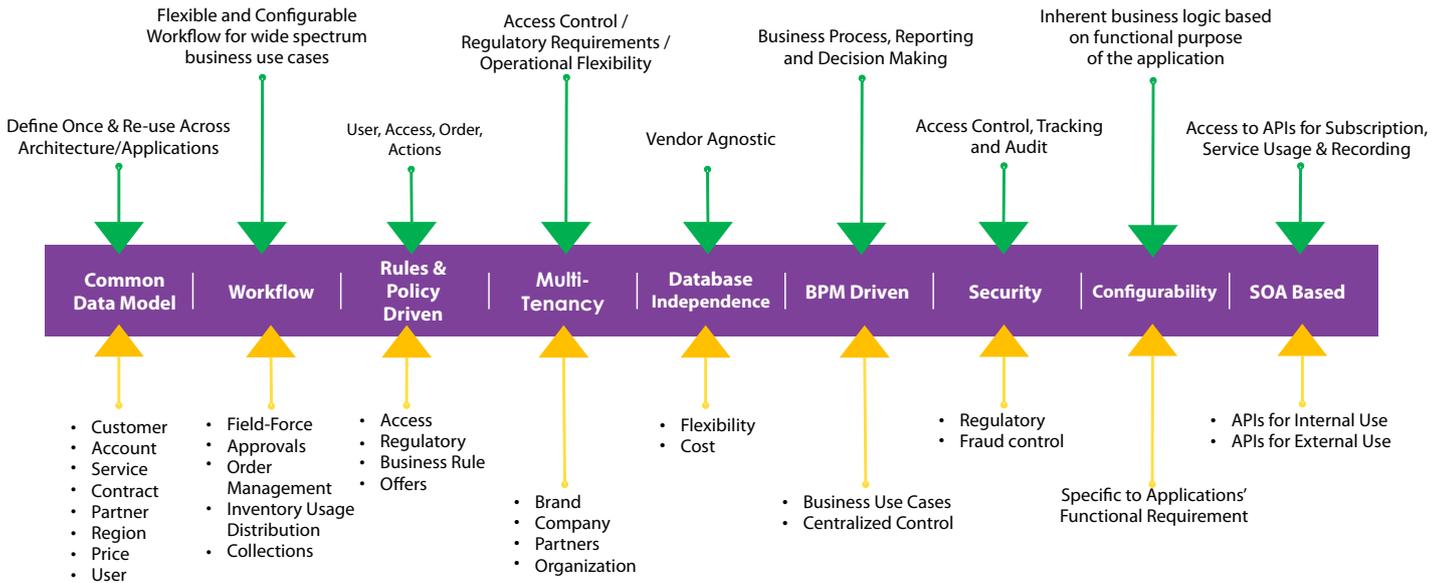
Introduction

The Internet of Things (IoT), mobility, social media, and alternative channels of communication and engagement are driving dramatic changes across businesses. In the telecom industry, communication service providers (CSPs) are already making a strategic shift toward becoming true horizontal service providers in order to leverage opportunities presented by information and communications technology (ICT) to drive growth beyond the communication infrastructure. CSPs are also realizing the importance of monetizing data and having information capabilities to counter the stagnation in their core products and services.

New infrastructure and business models allow CSPs to collaborate with suppliers and partners to move up the value chain and explore new markets and revenue streams. The formation of multiple consortiums for global mobility, machine-to-machine (M2M) technology, and over-the-top (OTT) services also points toward a more collaborative and open value chain. Governments and policy makers across the globe are empowering the telecom industry to enable and leverage digitization for social and national growth. Some initiatives in this direction include the National Broadband Network (NBN) in Australia, Bharat Broadband Network Limited (BBNL) in India, and the ban on roaming charges in Europe.

Platformization can bring in significant benefits in terms of time, cost, and usability through the use of open-source technologies, cloud and multi-tenancy, agile development models, and automation across processes. It helps deliver lean, highly configurable, interoperable, and ready-to-use solutions.

Digital Transformation for Communication Service Providers through Platformization

TCS conducted a survey of over 800 companies around the world to understand the impact of digital technologies on their strategies, investments, and future plans. For CSPs, a transformation to cater to the digital consumer economy involves leveraging digital forces such as mobility and pervasive computing, cloud, Big Data, artificial intelligence and robotics, and social media to address the changing dynamics of the telecom industry. CSPs need to revamp their strategies across business models, products and services, customer segments, channels, business processes, and workplaces to make the most of their digital investments. Platformization can help telecom service providers fundamentally change the way they do business.

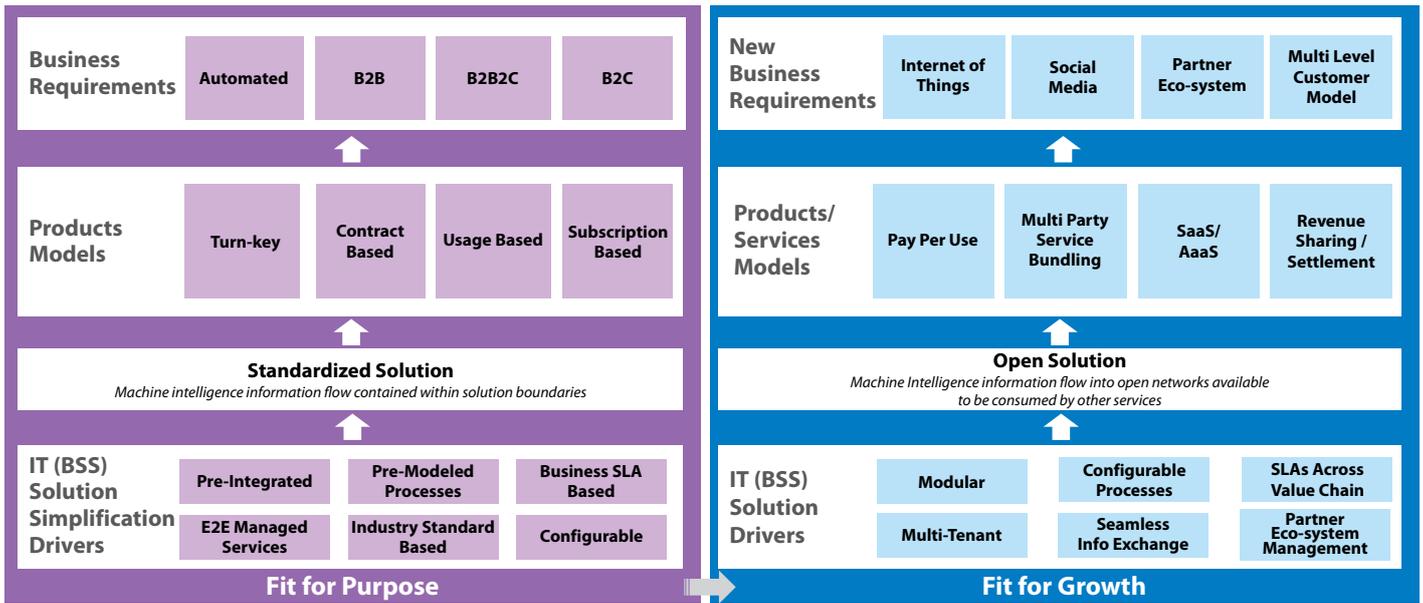*Key characteristics of the platformization approach*

The various platforms can host revenue generating products and services, such as mobile banking and ICT platforms for small and medium businesses.

Transforming into a Digital Telco

Telecom service providers across the globe are aspiring to expand their core telecommunications business by transforming themselves from telcos to digital telcos. They are looking for new revenue-generating opportunities in adjacent industries such as financial services, e-health, M2M, cloud computing, safety, video and digital homes, applications, and advertising. Optimizing investments in legacy services and improving margins are also high on their priority list.

The key difference between traditional telco services and digital telco services lies in the solution tenants. At one end of the spectrum, CSPs are looking at simplified and standardized business support systems (BSS) and operations support systems (OSS) solutions to support traditional telco services. At the other end, there is a growing need for flexible, adaptable, and extensible solutions for digital telco services, due to the evolving nature of service models and partner ecosystems.

In order to support the growing maturity of existing services, and enable the next generation of digital services, telcos need pre-integrated, flexible, and adaptable platforms that adhere to industry standards.

Fit for Purpose			
Business Requirements	Automated	B2B	B2B2C	B2C
Products Models	Turn-key	Contract Based	Usage Based	Subscription Based
Standardized Solution *Machine intelligence information flow contained within solution boundaries*			
IT (BSS) Solution Simplification Drivers	Pre-Integrated / E2E Managed Services	Pre-Modeled Processes / Industry Standard Based	Business SLA Based / Configurable

Fit for Growth			
New Business Requirements	Internet of Things	Social Media	Partner Eco-system	Multi Level Customer Model
Products/ Services Models	Pay Per Use	Multi Party Service Bundling	SaaS/ AaaS	Revenue Sharing / Settlement
Open Solution *Machine Intelligence information flow into open networks available to be consumed by other services*			
IT (BSS) Solution Drivers	Modular / Multi-Tenant	Configurable Processes / Seamless Info Exchange	SLAs Across Value Chain / Partner Eco-system Management

Solution tenants for traditional and digital telco services

Platformization of Business and Operations Support

It is imperative to use the principles of platformization to materialize the core systems that are responsible for a telco's operations and businesses—the Operations and Business Support systems (OSS/BSS). The following ingredients help CSPs create a holistic OSS and BSS stack in order to cater to the demands of the hyper-connected market:

■ **Effective Transformation Strategy**

The focus is on simplifying business processes for telco operators and using a lean and agile methodology for implementing the solution.

■ **Enhanced Modular Design**

The design of the core product should be extensible to provide the right IT support for the strategic needs of a digital telco.

■ **Comprehensive and Reliable Solution**

The partnership and ownership model should offer end-to-end set-up and management of services based on business and regulatory SLAs.

■ **Low Total Cost of Ownership**

Linearity in the cost of the solution linked to revenues through flexible opex-based commercial models.

A transformed CDM strategy allows CSPs to embrace devices management platforms as a key to service differentiation, automation of operational processes, and enhanced customer experience

■ **Comprehensive Coverage for Business Processes Readiness**

While eTOM provides guidance and standardized level 3 processes, it is not detailed enough to support solution deployment. The actual fulfillment, assurance, billing, and operations processes need to be designed and detailed up to level 4 and 5.

■ **Flexible Implementation Approach for Accelerated Deployment**

A flexible, modified software development lifecycle (SDLC) deployment model enables accelerated deployment of the solution.

■ **Operations and Support Framework for Continuous Improvements**

The OSS and BSS solution should provide a comprehensive KPI-driven ITIL-based operations and support framework which enables continuous improvement, as well as transparency and consistency in managing performance and adhering to SLAs, along with visibility into the day-to-day operations.

Rethinking device management for next-gen service delivery

The global communication services industry is witnessing a high degree of device proliferation across homes and enterprises. While telecom companies are not new to managing devices, current trends with respect to the device ecosystem are creating the need for more efficient platforms to manage them. CSPs need to consider certain factors in the consumer and enterprise space:

■ Devices are the window to services for the end-user and need to be managed better than ever before.

■ Addressing service complexity to not only just manage end devices but also devices and nodes in a network topology and ensuring one system to manage multiple devices and processes.

Further, a telecom company's operations can be simplified in the follow ways:

■ Integrating Separate Processes

At a telecom company, monitoring the devices in a network operations center (NoC), delivering a committed quality of

service (QoS), and fixing device or network problems involve a host of processes. Automating the routine monitoring of devices and their configuration will help the company ensure committed service levels to customers.

■ Consolidating Numerous Tools

CSPs typically buy and maintain numerous tools, even though they have invested significantly in making their networks IP-enabled. These can be consolidated to a technology and OEM agnostic solution to reduce operational complexity and cost.

■ Automating the IP Network

Automating routine issues can reduce the chances of errors, as well as reduce operational complexity.

Conclusion

With the right platforms, CSPs across the globe can simplify and transform operations and enhance customer service. Configurable and ready-to-use platforms modernize the legacy environment and reengineer processes to simplify operations. Such platforms also help telecom companies bring about radical changes in their IT systems to launch new products and services faster, and at reduced costs.

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